

The value of European immigration for high-level UK research and clinical care: cross-sectional study

Mursheda Begum¹, Grant Lewison¹ , Mark Lawler² and Richard Sullivan¹

¹Comprehensive Cancer Centre, Institute of Cancer Policy, School of Cancer and Pharmaceutical Sciences, Guy's Hospital, King's College London, London SE1 9RT, UK

²Centre for Cancer Research and Cell Biology, Queen's University Belfast, Belfast BT9 7AE, UK

Corresponding author: Grant Lewison. Email: grant.lewison@kcl.ac.uk

Summary

Objective: The UK's impending departure ('Brexit') from the European Union may lead to restrictions on the immigration of scientists and medical personnel to the UK. We examined how many senior scientists and clinicians were from other countries, particularly from Europe, in two time periods.

Design: Cross-sectional study.

Setting: United Kingdom.

Participants: Individuals who had been elected as Fellows of the Royal Society or of the Academy of Medical Sciences, and UK medical doctors currently practising and listed in the Medical Register for 2015.

Main outcome measures: Percentages of Fellows of the Royal Society, Fellows of the Academy of Medical Sciences and UK medical doctors by nationality (UK and Irish: UKI, European: EUR and rest of world: RoW) over time. Fellows of the Royal Society and the Academy of Medical Sciences proportions were assessed for two time periods, and doctors over decades of qualification (<1960s to 2010s).

Results: Percentages of European Fellows of the Royal Society increased from 0.8% (1952–1992) (the year the UK signed the Maastricht treaty) to 4.3% (1993–2015). For Fellows of the Academy of Medical Sciences, percentages increased from 2.6% (pre-1992) to 8.9% (post-1992) (for both, $p < 0.001$). In the 1970s, only 6% of doctors were trained in the EU; the proportion increased to 11% in the last two decades (also $p < 0.001$). Europeans replaced South Asians as the main immigrant group. Among these, doctors from the Czech Republic, Greece, Poland and Romania made the largest contribution.

Conclusions: Any post-Brexit restriction on the ability of the UK to attract European researchers and medical doctors may have serious implications for the UK's science leadership globally and healthcare provision locally.

Keywords

Brexit, Fellows of the Royal Society, Fellows of the Academy of Medical Sciences, medical doctors, European Union (EU), European immigration

Received: 14th June 2018; accepted: 7th September 2018

Introduction

The UK joined the European Union (EU) in 1973 and signed the Maastricht Treaty in 1992. This provided for the 'four freedoms' of the EU: free movement of goods, services, capital and labour across borders. On 23 June 2016, the UK voted by a narrow margin to leave the EU. The exit process ('Brexit') will not take effect until 1 April 2019. Until then, negotiations will address several key components of the UK's relationship with the EU, including research, innovation and healthcare delivery.¹

We evaluated the role and contribution of senior overseas scientists and healthcare professionals to high-level research and healthcare provision in the UK. Overseas scientists consisted of two groups: the other 26 EU Member States (excluding Ireland as well as the UK), plus Iceland, Norway and Switzerland (EUR), and all other countries excluding the EUR, the UK and Ireland (rest of the world, RoW). Data for the UK and Ireland (UKI) were combined as Irish citizens currently enjoy unrestricted freedom to live and work in the UK.

The foreign-born population in the UK increased from 3.8 million in 1993 to 8.7 million in 2015, representing 7.0% and 13.5%, respectively, of the total population,² but it is still less than the percentages in Ireland and Sweden (16%), Canada (20%), and Australia and Switzerland (28%).³

There is evidence that the UK has benefited substantially from the presence of foreign-born researchers. They accounted for 29% of academic staff in 2015–2016⁴ and 39% of the cancer researchers in 2014–2016 with non-British names (of whom half had continental European names), many of whom will have been first-generation immigrants.⁵ In this paper, we sought to examine the contribution made at the highest levels of science by individual foreign-born researchers. We therefore determined

their presence among Fellows of the Royal Society and of the Academy of Medical Sciences. These independent bodies recognise individuals who have excelled in their respective fields, and thus have contributed substantially to high-level UK science/research.

The UK's continued excellence and investment in medical research has led to positive benefits, including healthier and longer lives.⁶ Therefore, we also examined the role of foreign-born doctors in the delivery of care in the UK. Specifically, we looked in the General Medical Council Register of doctors for the presence of UK medics who were trained abroad, including the numbers in senior positions as hospital consultants (specialists), those working as general practitioners and their year of qualification. Medical practitioners are responsible for the clinical application of scientific knowledge, but many also conduct scientific research.

Methods

We sourced nationality data for each Fellow of the Royal Society and of the Academy of Medical Sciences from their online profiles or based on their country of birth; failing that, the country of first degree was used as a proxy. For medical practitioners, the country of medical qualification was employed.

Fellows of the Royal Society and the Academy of Medical Sciences

Fellows of the Royal Society were identified from the Society's Yearbook⁷ and Fellows of the Academy of Medical Sciences from an electronic list, kindly provided by David Silverthorne and Russell Crandon, respectively. Overall, lists of 1433 current Fellows of the Royal Society and 1155 current Fellows of the Academy of Medical Sciences were obtained, which included their titles, full names, institutions and years of election. We focused on the 1056 Fellows of the Royal Society and 1100 Fellows of the Academy of Medical Sciences based in the UK.

We obtained details of their nationality and/or education from *Who's Who* (www.ukwhoswho.com/) and noted the country of their first degree. This was used as a proxy for national origin if country of birth or original nationality were not available. As many Fellows are medical doctors, the UK General Medical Council Register was also used, since it gives the city of their medical qualification. For those individuals who could not be identified from these sources, details of their education were sought from their *curricula vitae*, via the websites of their affiliated institutions.

We tested the hypothesis that country of first degree was a good indicator of nationality by an examination of the nationalities of the 33 Fellows of Royal Society who received their first degree in a EUR country and for whom the country of birth could be identified ($N=26$). For 23 of the 26, there was agreement between country of first degree and country of birth (89%). Of the three individuals where it differed, two of them graduated in Belgium, but were born in Luxembourg and in Zaire (now the Democratic Republic of the Congo). Luxembourg's main university, the University of Luxembourg, was only founded in 2003, while Zaire was under Belgian colonial rule until 1960, so it would have been natural for these Fellows of the Royal Society to go to Belgium for their education. Thus, country of birth can be reliably used as an indicator of nationality.

The institutions in which all Fellows received their first degree were categorised by both their country International Organization for Standardization (ISO) code and world region (UKI, EUR or RoW). Individuals whose academic qualifications could not be found were classified as unknown. The UK-based Fellows of the Royal Society were grouped into two time periods (1952–1992 and 1993–2015), representing time periods pre- and post-Maastricht treaty, and by the country/world region of their first degree. The Academy of Medical Sciences was only founded in 1998 (compared with 1662 for The Royal Society), so its UK-based fellows were grouped into periods 1998–2002 and 2003–2015.

For all the comparisons, the statistical test used was the chi-squared value for the Poisson distribution, with one degree of freedom. In principle, significance was judged by whether $p < 0.05$, but in practice for almost all the comparisons, we found that $p \ll 0.05$.

Medical practitioners

The General Medical Council Register for April 2015 was used to identify individual medical practitioners within the UK. The register is publicly available and includes details of each doctor's full name, sex, year, place of first medical qualification and current status on the register (whether they are with or without licence to practise, and whether they are specialists or general practitioners). Only doctors registered with a provisional or full medical licence were included in our analysis. Some 235,285 practitioners were identified, with the oldest doctor qualifying in 1939 and the youngest in 2013. The country of first medical qualification was noted, and then categorised into three world regions (UKI, EUR and RoW). Those from the RoW were further sub-categorised

into nine sub-regions: Africa (AFR); Asia (ASI); Australasia and Oceania (AUS); Eastern Europe (EEU); Islamic World (ISL, *countries in Maghreb and Middle East*); Latin America (LAT); North America (NAM); South Asia (SAS, *Pakistan, India, Bangladesh, Sri Lanka*); and the West Indies (WIN). The year of first qualification was classified into decades between the 1940s and earlier to the 2010s.

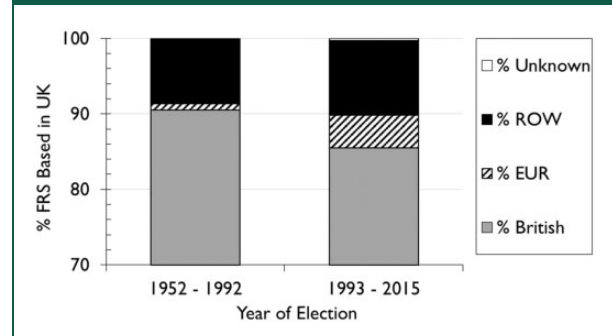
Results

Fellows of the Royal Society and the Academy of Medical Sciences

Of the 1056 Fellows of the Royal Society who were based in the UK, as expected, most graduated from UK and Irish universities ($N=921$, 87%), followed by the RoW ($N=100$, 10%) and then Europe ($N=33$, 3.1%). We were unable to classify two fellows (0.2%). Those who graduated from universities in EUR countries have increased markedly since the UK signed the Maastricht treaty, while the numbers from the RoW universities have remained constant. For EUR graduates, the percentages increased from 0.8% ($N=3/360$; one each from Austria, Romania and Sweden) in the period 1952–1992 to 4.3% ($N=30/696$; nine from Germany, four from Switzerland, three each from Austria and Hungary, two each from Belgium, Denmark, Italy and Sweden, and one each from the Czech Republic, France and Greece) in the period 1993–2015 ($p < 0.001$) (Figure 1). This represents a five-fold increase. Had the ratios remained constant, we would have expected just six European-born fellows in the latter period. In the same time periods, there was little change in the number of fellows from the RoW: 8.6% ($N=31/360$) rising to 9.9% ($N=69/696$) ($p = \text{n.s.}$). Among Europeans, the main originating countries were Germany and Austria; in the RoW, the leading foreigners were Americans ($N=24$) and Australians ($N=20$).

Of the 1100 Fellows of the Academy of Medical Sciences based in the UK, UKI fellows made up the largest portion ($N=869$, 79%), while 61 qualified from EUR (5.5%) and 89 in the RoW (8.1%). The country of first degree for 81 individuals (7.4%) was unknown. The percentage of Fellows of the Academy of Medical Sciences who graduated in EUR countries has increased greatly from 2.6% ($N=15/584$; three from Switzerland, two each from Greece and Hungary, and one each from Denmark, France, Germany, Italy, Malta, Poland, Portugal and Sweden) in the earlier period to 8.9% ($N=46/516$; 11 each from Germany and Italy, four each from Belgium and France, three from Switzerland, two each from Denmark, Malta and Spain, and one each from Austria, Finland, Greece,

Figure 1. Percentages of Fellows of the Royal Society (FRS) who were trained in the UKI (UK and Ireland), other European countries (EU countries excluding the UK and Ireland, and including Iceland, Norway and Switzerland) (EUR) or the rest of the world (RoW) across two periods (1952–1992; 1993–2015). Note: false origin.



Hungary, Poland, Portugal and Sweden) subsequently ($p < 0.001$). By contrast, the number of Fellows from the RoW was similar in both periods ($N=46$, 7.9% to $N=43$, 8.3%, $p = \text{n.s.}$) (Figure 2). EUR-origin fellows graduated predominantly from Germany ($N=12$) and Italy ($N=11$), while most RoW-origin fellows graduated from Australia ($N=19$), the USA ($N=17$) and South Africa ($N=15$).

Medical practitioners

Of the 235,285 doctors in the medical register with a provisional or full licence to practise in the UK, approximately 36% were trained abroad (EUR: 10%, RoW: 26%, Figure 3). Until the 2000s, the majority of doctors qualifying outwith the UK received their first medical degree from South Asia, peaking at 70% during the 1960s and then decreasing over time to their current historically low levels. South Asian-trained doctors qualifying in the 1970s comprised 19% of the total, compared with just 6% for European-trained doctors; however, by the 2000s, both groups represented about 12%. The numbers of EUR-trained doctors have increased markedly in the last two decades (from 7615 in 1973–1992 to 15,409 in 1993–2012) to become the dominant foreign-trained group since 2004 (Figure 4). In particular, percentages of doctors trained in the former Communist Member States of the EU have risen from 33% of all European-trained doctors in the 1990s to 40% in the 2000s and to 55% in the 2010s (for both, $p < 0.001$). Of the 15 most prominent European countries, doctors qualifying from Greece, Romania and Italy (in the 2000s) and Poland (in the 2010s), and particularly the Czech Republic (all $p < 0.001$), have shown large increases, while

Figure 2. Percentages of Fellows of the Academy of Medical Sciences who were trained in the UKI (UK and Ireland), other European countries (EU countries excluding the UK and Ireland, and including Iceland, Norway and Switzerland) (EUR) or the rest of the world (RoW) in two periods (1998–2002; 2003–2015). Note: false origin.

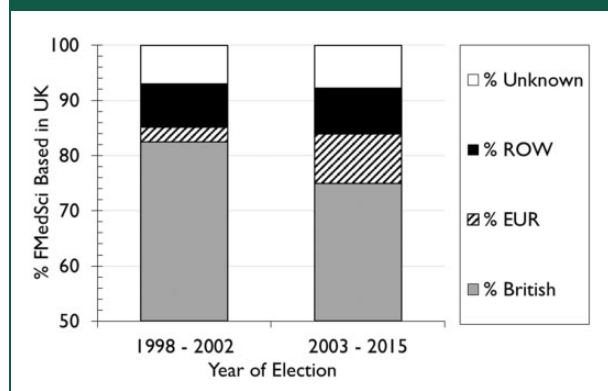
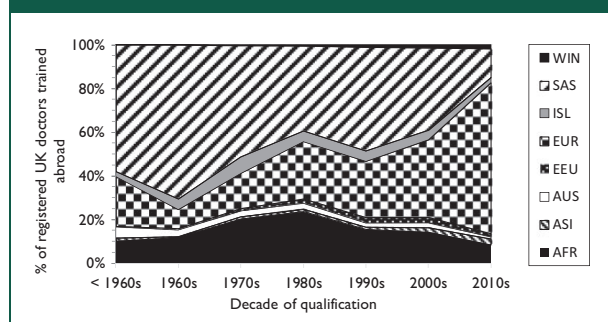


Figure 3. Percentages of the UK's foreign-trained doctors in 2015.

AFR: Africa, ASI: Asia, AUS: Australasia and Oceania, EEU: Eastern Europe, EUR: European Union (excluding UK and Ireland, and including Iceland, Norway and Switzerland), ISL: Islamic World, SAS: South Asia and WIN: West Indies.



German-trained doctors have decreased in numbers over the last three decades, as have those from Ireland and Spain (Figure 5, all changes significant with $p < 0.02$). Numbers of UK doctors qualifying from Africa have been declining continuously since the 1980s (when they represented 23% of foreign-qualified medics), with the lowest levels observed during the last decade (8%). The decreases from the 1980s to the 1990s, and from the 2000s to the 2010s, were highly significant ($p < 0.001$), but the change from the 1990s to the 2000s was not significant.

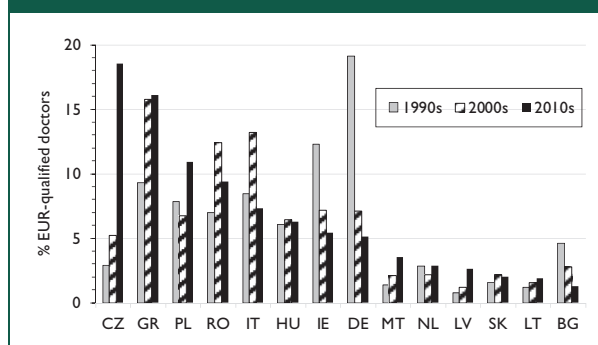
In terms of level of service delivery, 59,770 of the registered practitioners were general practitioners (25%) and 71,114 were specialists (30%), while the remaining 104,401 individuals were presumed to be junior doctors (44%). Doctors from EUR countries

Figure 4. Number of UK doctors qualified in EUR and South Asia (largest foreign-trained cohorts) from 1990 to 2010.



Figure 5. Percentages of the UK European-trained doctors who qualified in 15 leading European countries (other than the UK).

CZ: Czech Republic, GR: Greece, PL: Poland, RO: Romania, IT: Italy, HU: Hungary, IE: Ireland, DE: Germany, MT: Malta, NL: Netherlands, LV: Latvia; SK: Slovakia, LT: Lithuania, BG: Bulgaria.



made up 3870 (6.5%) of the general practitioners, 11,021 of the specialists (16%) and 10,325 of the junior doctors (10%). In the leading specialist domains, doctors of EUR origin were among the largest foreign-trained group in cardiothoracic surgery ($N = 210$, 37%), general surgery ($N = 981$, 25%) and ophthalmology ($N = 515$, 24%). On the assumption that it takes approximately 10–20 years for doctors to become specialists, from the cohort of junior doctors who qualified in the 2000s and who are expected to be the main source of future specialists, one in nine were trained in EUR countries.

Discussion

Our study clearly demonstrates the positive contribution by scientists and medical doctors from EUR

countries to high-level research and clinical care in the UK. The numbers of UK-based Fellows of the Royal Society and of the Academy of Medical Sciences from the EUR countries have significantly increased since the UK signed the Maastricht treaty. This shows that high-level British science and medicine have attracted and benefitted from an inflow of European researchers.

There are some inevitable limitations to this study. First, it was based only on publicly available information. Second, the country of first academic degree (for doctors, country of medical qualification) was sometimes used as a proxy for nationality. We have shown that this approach is accurate for a sample of Fellows of the Royal Society, and it is likely to be valid also for Fellows of the Academy of Medical Sciences. However, individuals can have citizenship of more than one country.

From a scientific perspective, research funding is a key concern, as the UK is a significant beneficiary from EU contracts.⁸ While the UK government has announced certain measures to guarantee EU funding for contracts, for their full duration, that are signed before the UK formally departs from the EU,⁹ the impact of these measures remains to be tested and does not in any way address EU funding post-April 2019. A more long-term solution is required, whereby UK researchers can continue to participate in future EU funding programmes. In addition to the research funding itself, collaborative research with EUR scientists and prestigious programmes such as the European Research Council grant scheme can drive high-impact research and attract premier quality EUR scientists to work in the UK.

From a medical perspective, since 2004 doctors from EUR countries are the largest cohort of foreign-qualified practitioners in the UK, with Eastern European doctors predominating during the last decade. This may be in part due to NHS plans, outlined in the General Practice Forward View, to increase the medical workforce through the recruitment of ~500 doctors from overseas by offering training and language support packages.¹⁰ However, the numbers of doctors qualifying from other continents such as Africa and South Asia have declined during the same time period. This may relate to changes in immigration rules in 2010, designed to limit the number of non-EU migrants to the UK,¹¹ perhaps making it more difficult for international medical students from outwith Europe to afford increased university fees or to find work in the UK. In contrast, the free movement of EU citizens and mutual recognition of professional qualifications¹² will have made it much easier for UK employers to hire EU nationals. Maintaining this

policy in a post-Brexit UK may be challenging, leading to a lack of appropriately qualified doctors practising in the NHS.

The numbers of doctors on the register may have changed slightly, since our analysis was based on data up to April 2015, but the broad findings are likely to be the same. Only doctors still currently able to practise in the UK were included in the study. Many of the doctors who would have qualified in the earliest decades were no longer practising, mainly because they have either relinquished registration or have died. These included 6174 (70%) doctors who qualified in the pre-1940s decade, 10,203 (69%) in the 1950s and 8753 (47%) in the 1960s. Thus, the proportion of doctors who qualified outwith the UK during those decades may have been underestimated.

It is not clear what a post-Brexit immigration policy will look like in the UK or what its potential consequences will be, especially with regard to free movement.^{13,14} Immigrants to the UK are highly educated. In 2015, 47% of immigrants to the UK aged 15–64 years had tertiary-level education, compared to 30% of immigrants to other EU Member States.¹⁵ The UK government has made a clear commitment to reduce net migration to the tens of thousands.¹⁶ Given that work is the main reason for migration to the UK,¹⁷ this objective is only likely to be realised if low- and middle-skilled immigrants¹⁴ are targeted.

The importance of foreign doctors who contribute to national health delivery has been shown with the recent report of how older patients in the US treated by international medical graduates have lower mortality than those treated by their US-trained counterparts.¹⁸ With the UK now officially in the process of leaving the EU, there are concerns about how this may affect NHS services and patient care, health research and international cooperation.¹⁹ It is distinctly possible that uncertainty about the ability of EUR citizens to work in the UK may lead to a staffing crisis, as they seek work elsewhere, despite both the Department of Health²⁰ and the Medical Director of NHS England²¹ publicly reassuring EU nationals of their value to the UK health service. Specialties with a heavy reliance on EU nationals (general surgery, ophthalmology) and nursing are likely to be seriously affected if recruitment problems are left unaddressed. The Nursing and Midwifery Council (NMC) recorded sharp declines in the number of EU nurses registering to practise in the UK, with just 46 registrants in April 2017 compared to 1304 in July 2016.²² The UK is unusual in its dependence on internationally trained doctors, with 30%, compared to neighbouring countries such as France (3%) and Germany (6%).²³ The UK has fewer doctors per 100,000 than both these countries, half as many as in

France and 46% of the number in Germany. With a growing and ageing population, there are questions on whether the increasing demands for healthcare can be satisfied by the plans to increase medical school places in the UK,²⁴ particularly if these plans do not specifically include options for medical graduates from EUR countries to practise in the UK.

Conclusions and implications

Our results indicate a very positive and statistically significant contribution of European scientists, academics and medical practitioners to the UK research base and the provision of clinical care. Many immigrants have built strong careers that have been rewarded with prestigious fellowships because they have impacted positively on UK research. It is vital that the national diversity in high-quality human capital that we have highlighted in this article is maintained in a post-Brexit UK research and healthcare environment. Otherwise, there is a high risk of considerable damage to the UK's top scientific outputs and international research reputation as well as a concomitant reduction in quality healthcare for UK citizens.

Declarations

Competing Interests: ML and RS have received honoraria from Pfizer unrelated to this work.

Funding: This paper was supported by RCUK Grant (R4HC ES/P010962/1).

Ethics approval: Not required, as the data were taken from publicly-available sources only.

Guarantor: RS.

Contributorship: GL conceived and supervised the study; MB collected and analysed the data. GL, MB, ML and RS all helped to draft and review the manuscript and gave final approval for publication.

Acknowledgements: We are grateful to the late Patrick Johnston of Queen's University Belfast for very helpful comments on the manuscript. MB is funded by the Economic and Social Research Council (ESRC) on a London Inter-disciplinary Social Science (LISS) doctoral training partnership studentship.

Provenance: Not commissioned; peer-reviewed by Martin Mckee.

ORCID iD: Grant Lewison  <http://orcid.org/0000-0002-4493-1216>

References

1. Science and Technology Committee (Commons). *Leaving the EU: Implications and Opportunities for Science and Research Inquiry – Publications*. UK Parliament, 2016. See www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/inquiries/parliament-2015/leaving-the-eu-inquiry-16-17/publications/ (last checked 11 September 2018).
2. Rienzo C and Vargs-Silva C. *Migrants in the UK: An Overview*. Oxford: University of Oxford Migration Observatory, 2017. See www.migrationobservatory.ox.ac.uk/resources/briefings/migrants-in-the-uk-an-overview/#kp1 (last checked 11 September 2018).
3. OECD. *Foreign-Born Population (Indicator)*, 2017. See <https://data.oecd.org/migration/foreign-born-population.htm> (last checked 11 September 2018).
4. The Royal Society. *UK Research and the European Union: The Role of the EU in International Research Collaboration and Researcher Mobility*, 2016. See <https://royalsociety.org/~media/policy/projects/eu-uk-funding/phase-2/EU-role-in-international-research-collaboration-and-researcher-mobility.pdf> (last checked 11 September 2018).
5. Begum M, Roe P, Webber R and Lewison G. UK ethnic minority cancer researchers: their origins, destinations and sex. In: *Proceedings of the 16th international conference on scientometrics and informetrics*. China: Wuhan University, 2017, pp. 568–579.
6. All-Party Parliamentary Group on Medical Research. *A Healthy Future for UK Medical Research*, 2014. See www.mrc.ac.uk/publications/browse/a-healthy-future-for-uk-medical-research/ (last checked 11 September 2018).
7. The Royal Society. *Year Book of the Royal Society*. London: The Royal Society, 2016, pp.22–186.
8. European Commission. *EU Expenditure and Revenue 2007–2013*, 2016. See http://ec.europa.eu/budget/figures/2007-2013/index_en.cfm (last checked 11 September 2018).
9. HM Treasury, Department for Communities and Local Government, Department for Environment Food & Rural Affairs, Department for Work and Pensions, Department for Exiting the European Union, Department for Business Energy & Industrial Strategy, et al. *Chancellor Philip Hammond Guarantees EU Funding Beyond Date UK Leaves the EU*, 2016. See www.gov.uk/government/news/chancellor-philip-hammond-guarantees-eu-funding-beyond-date-uk-leaves-the-eu (last accessed 14 September 2018).
10. NHS England. *General Practice Forward View: Workforce Plans*, 2016. See www.england.nhs.uk/commissioning/primary-care-comm/gp-workforce/ (last checked 11 September 2018).
11. Home Office, Border Force, UK Visas and Immigration, MP, The Rt Hon James Brokenshire MP. *2010 to 2015 Government Policy: Immigration and Borders*, 2013. See www.gov.uk/government/publications/2010-to-2015-government-policy-immigration-and-borders (last checked 11 September 2018).
12. British Medical Association. *Working in the European Economic Area*, 2016. See www.bma.org.uk/advice/career/going-abroad/working-abroad/european-economic-area (last checked 11 September 2018).
13. Portes J. Immigration, free movement and the EU referendum. *Natl Inst Econ Rev* 2016; 236: 14–22.

14. Sumption M. Labour immigration after Brexit: questions and trade-offs in designing a work permit system for EU citizens. *Oxford Rev Econ Policy* 2017; 33: S45–S53.
15. Alfano M, Dustmann C and Frattini T. *Immigration and the UK: Reflections after Brexit*. Discussion paper series. Exchange Organizational Behavior Teaching Journal. London; 2016. See www.cream-migration.org/publ_uploads/CDP_23_16.pdf (last checked 11 September 2018).
16. Conservatives. *Forward, Together: Our Plan for a Stronger Britain and a Prosperous Future*. The Conservative and Unionist Party Manifesto 2017. London, 2017. See www.conservatives.com/manifesto (last checked 11 September 2018).
17. European Union Committee. *Brexit: UK-EU movement of people*. 14th report of session 2016–17, 2017. See www.publications.parliament.uk/pa/ld201617/ldselect/ldcom/121/121.pdf (last checked 11 September 2018).
18. Tsugawa Y, Jena AB, Orav EJ and Jha AK. Quality of care delivered by general internists in US hospitals who graduated from foreign versus US medical schools: observational study. *BMJ* 2017; 356: 1–8.
19. Wollaston S. Brexit should come with a health warning for the NHS, public health, and research. *BMJ* 2016; 353: 1–3.
20. Lintern S. Hunt tells EU staff “you are a crucial part of our NHS.” *Health Serv J* 2016. See www.hsj.co.uk/topics/workforce/hunt-tells-eu-staff-you-are-a-crucial-part-of-our-nhs/7005946.article (last checked 11 September 2018).
21. Lintern S. Keogh: We must make EU NHS staff feel welcome and valued. *Health Serv J* 2016. See www.hsj.co.uk/topics/workforce/keogh-we-must-make-eu-nhs-staff-feel-welcome-and-valued/7005883.article (last checked 11 September 2018).
22. The Health Foundation. *New Data Show 96% Drop in Nurses from EU Since July Last Year, 2017*. See www.health.org.uk/news/new-data-show-96-drop-nurses-eu-july-last-year (last checked 11 September 2018).
23. Pond B and McPake B. The health migration crisis: the role of four Organisation for Economic Cooperation and Development countries. *Lancet* 2006; 367: 1448–1455.
24. Department of Health and Social Care. *More Undergraduate Medical Education Places, 2017*. See www.gov.uk/government/news/more-undergraduate-medical-education-places (last checked 11 September 2018).

RSM student study weekend (London)

This event aims to help students prepare for their exams by covering subject matter in surgery and medicine that are common and important for their examinations and in clinical practise. These are delivered in the form of presentations by eminent professionals in this field.

Prices start from £42

Find out more and register today at:
www.rsm.ac.uk/events/stm05

Saturday 16 to Sunday 17 February 2019

8.30 am - 4.30 pm

Royal Society of Medicine, 1 Wimpole Street, London W1G 0AE



The ROYAL
SOCIETY of
MEDICINE

@RoySocMed

/RoyalSocietyofMedicine

Royal Society of Medicine